

Abstract of the Disclosure

An improved optical communication system is provided, the system particularly suited for so-called short-haul applications, e.g., applications involving transmission over distances less than 100 km, such as metro applications. The system uses an external cavity laser made up of a gain medium that comprises an active region, a beam expanding
5 region, and an antireflective layer, an optical waveguide located adjacent the gain medium, and a Bragg grating integral with or coupled to the optical waveguide. The medium and the optical waveguide, due to the beam expanding region, exhibit a coupling efficiency of at least 40%, advantageously at least 50%, even in the absence of coupling optics, and the laser is configured and operated to emit at least two modes.